

## BROODING AND REFLECTING IN AN INTERPERSONAL CONTEXT

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### **Abstract**

Rumination consists of two components: brooding, which increases depressive feelings, and reflection, which appears to be unrelated to or protective against depression. The present study is the first to extend the intrapersonal constructs of brooding and reflection to the interpersonal context, thereby relying on previous work in the domain of co-rumination. In this two-wave longitudinal study, a community sample of 371 pupils (63.1% girls) aged 9-15 years was followed up over a three-month interval. Using items drawn from the Co-Rumination Questionnaire (Rose, 2002), a two-factor model distinguishing between co-brooding and co-reflection was validated using confirmatory factor analysis. Both co-brooding and co-reflection emerged as significant unique predictors of depressive symptoms over a three-month interval, above and beyond sex and baseline depressive symptoms. Co-brooding had a positive association with prospective depressive symptoms, whereas co-reflection was inversely related to prospective symptom levels. This pattern of results was unchanged when controlling for intrapersonal brooding and reflection. Post-hoc analyses revealed that co-brooding and co-reflection could be framed as higher order factors, each encompassing two lower-order factors and that the effects are carried by specific aspects of co-brooding and co-reflection, i.e. co-brooding on consequences and co-reflecting on causes of problems.

**Keywords:** co-rumination, rumination, co-brooding, co-reflection, brooding, reflection, depression, adolescents

### 1. INTRODUCTION

Adolescence is a critical developmental period for the first onset of depression. By the end of adolescence, prevalence rates have increased as much as sixfold (e.g., Costello, Erkanli, & Angold, 2006). Because recurrence rates from adolescence to adulthood are substantial (Birmaher, Arbelaez, & Brent, 2002) and even subclinical depressive symptoms are linked with impaired functioning (Roberts, Lewinsohn & Seeley, 1991), it is important to identify factors that contribute to the onset and maintenance of depressive symptoms in youth.

An influential model of depression vulnerability is the Response Styles Theory (RST; Nolen-Hoeksema, 1991), which posits that the way in which individuals respond to their depressive symptoms influences both the duration and the severity of these symptoms. Central to this theory is the concept of rumination, which refers to the “behaviors and thoughts that focus one's attention on one's depressive symptoms and on the implications of these symptoms” (Nolen-Hoeksema, 1991, p. 569). Rumination has been repeatedly shown to predict the onset, severity, persistence, and recurrence of depressive symptoms in both adult and youth populations (for a review, see e.g., Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).

More recently, rumination is considered as a two-dimensional construct, with brooding and reflection representing two components (Treynor, Gonzalez, & Nolen-Hoeksema, 2003). Brooding is defined as “a passive comparison of one's current situation with some unachieved standard” (e.g., thinking about a recent situation, wishing it had gone better), whereas reflection refers to “purposeful turning inward to engage in cognitive problem solving” (e.g., analyzing your personality to try to understand why you are depressed) (Treynor et al., 2003, p. 256). A growing body of evidence in both adult and preadult samples suggests that

brooding predicts increases in depressive symptoms over time (e.g., Burwell & Shirk, 2007; Treynor et al., 2003; Schoofs, Hermans, & Raes, 2010), whereas reflection can be protective against prospective depression (e.g., Treynor et al., 2003; Verstraeten, Vasey, Raes, & Bijttebier, 2010; but see Burwell & Shirk, 2007; Schoofs et al., 2010).

Previously, rumination has been studied mainly as an intrapersonal response. However, researchers have begun to direct their attention to the interpersonal context of this response style. It was Rose (2002) who introduced the concept of co-rumination, i.e. “excessively discussing personal problems within a dyadic relationship” (p. 1830). Co-rumination is associated with greater positive friendship quality, but also with increased risk for emotional problems (Rose, 2002). For instance, higher levels of co-rumination were found to predict higher levels of concurrent depressive symptoms in both youth (Schwartz-Mette & Rose, 2012; Starr & Davila, 2009) and adults (Calmes & Roberts, 2008), and to be associated with a lifetime history of depressive disorders (Stone, Uhrllass, & Gibb, 2010). Also, co-rumination was found to predict increases in depressive symptoms over time (Hankin, Stone, & Wright, 2010; Rose, Carlson, & Waller, 2007), as well as future depressive episodes, including first onsets (Stone, Hankin, Gibb, & Abela, 2011).

Given the value of considering interpersonal aspects of rumination, it makes sense to explore whether the intrapersonal aspects of the brooding and reflection components might also occur interpersonally and, if they do, to examine their unique associations with depressive symptoms. Toward this goal, the first aim of the current study was to identify relevant items within an existing measure of co-rumination (i.e., the Co-Rumination Questionnaire, Rose, 2002) and to determine if a distinction can be made between a more passive, repetitive and catastrophizing manner of co-rumination (i.e., co-brooding) and a more active, analyzing, and reflective form (i.e., co-reflection). To the best of our knowledge, no study thus far has looked at interpersonal variants of brooding and reflection.

If interpersonal aspects of brooding and reflection can indeed be distinguished, then it is reasonable to expect co-brooding, like intrapersonal brooding, to be related to higher levels of concurrent and prospective depressive symptoms. Predicting effects of co-reflection is less clear, as some authors in the rumination literature have found a positive relationship between reflection and depressive symptoms, whereas others found a negative relationship or no relationship at all. Thus, the second aim of this study was to examine to what extent the interpersonal aspects of brooding and reflection are differentially related to depressive symptoms, both concurrently and prospectively.

The third and final aim of the study was to investigate the extent to which interpersonal variants of brooding and reflection add to the prediction of depressive symptoms, over and above their intrapersonal counterparts. This way, the possibility can be ruled out that a potential relationship between components of co-rumination and depressive symptoms would be a mere consequence of a shared association with components of intrapersonal rumination.

## 2. METHODS

### 2.1 Participants

A community sample of 401 pupils from the fifth and seventh grades of nine schools was approached. Parents of 16 children did not give their permission to participate and 11 children were absent on the day of administration. After eliminating the data of three pupils with random patterns of responding, the final Time 1 (T1) sample consisted of 371 pupils (63.1% girls) with a mean age of 11.73 years ( $SD = 1.10$ ; range 9.42-15.00). Three-month follow-up (T2) data were available for 357 pupils (i.e., 96.2% of the T1 sample). Initial CDI scores were in the clinically significant range for 18.06% of the participants (i.e., score  $\geq 16$ ; Timbremont, Braet, & Roelofs, 2008).

### 2.2 Measures

The *Co-Rumination Questionnaire* (CRQ; Rose, 2002) is a 27-item self-report questionnaire tapping co-rumination with the closest, same-sex friend. Items are rated on a 5-point rating scale (1 = *not at all true* to 5 = *really true*). The first three authors (rumination experts) independently selected all the items in the original CRQ they considered to be consistent with the definitions of brooding and reflection. Only items chosen by all three authors were retained, yielding six ‘co-brooding’ items (e.g., “When we talk about a problem that one of us has, we try to figure out every one of the bad things that might happen because of the problem”) and five ‘co-reflection’ items (e.g., “When we talk about a problem that one of us has, we talk about all of the reasons why the problem might have happened”).

The extended rumination subscale of the *Children’s Response Styles Questionnaire* (CRSQ; Abela, Brozina, & Haigh, 2002; CRSQ-ext; Verstraeten et al., 2010) consists of 10 items tapping brooding and reflective responses to sadness using a 4-point rating scale (1 = *almost never* to 4 = *almost always*).

The *Children’s Depression Inventory* (CDI; Kovacs, 2003) is a 27-item self-report questionnaire that measures cognitive, affective and behavioral symptoms of depression during the past two weeks. Each item is rated on a 3-point rating scale (0 - 2).

## **2.3 Procedure**

Prospective participants were given a letter, explaining the purpose of the study, inviting them to participate, and asking for parental permission. Pupils for whom informed consent was obtained filled out the questionnaires collectively during school hours, both at baseline and after a three-month follow-up period. Ethical approval was obtained from the local research Ethics Committee.

## **2.4 Missing Data Analysis**

Participants with and without complete data were compared using Little’s (1988) Missing Completely At Random test. This test was not significant, suggesting that missing

values could be reliably estimated ( $\chi^2(35) = 43.94$ ). Therefore, to minimize bias associated with attrition and missing data (Schafer & Graham, 2002), we used the expectation maximization (EM) algorithm available in SPSS 20 to impute scale-based missing data at T2. This enabled us to perform all analyses on the full sample of 371 participants.

### 3. RESULTS

#### 3.1 Confirmatory Factor Analyses

The internal structure of the 11-item subset of CRQ items was investigated using confirmatory factor analysis. The hypothesized two-factor model (6 ‘co-brooding’ and 5 ‘co-reflection’ items) was compared to a one-factor model (11 ‘co-rumination’ items). Both models showed good fit to the data:  $\chi^2(44) = 143.73$ , CFI = .98 for the one-factor model, and  $\chi^2(43) = 130.48$ , CFI = .98 for the two-factor model. However, the two-factor model performed significantly better than the one-factor model,  $\chi^2_{diff}(1) = 13.25$ ,  $p < .001$ . Also, only for the two-factor model, RMSEA was below .08 (i.e. .077 versus .081 for the one-factor model).

#### 3.2 Descriptive Analyses

Means, standard deviations, and internal consistencies for the total sample and for boys and girls separately are presented in Table 1. Because of the significant sex difference in reflection, co-brooding, and co-reflection scores, sex was included as a covariate in further analyses.

#### 3.3 Correlational analyses

Intercorrelations between all subscales are presented in Table 2. Age was not significantly related to any of the other variables. All (co-)rumination components showed significant positive intercorrelations. Both rumination components were strongly related to concurrent and prospective depressive symptoms. As to the co-rumination components, only the cross-sectional association of co-brooding with depressive symptoms was significant.



### 3.4 Regression Analyses

Hierarchical regression analyses were performed on both the cross-sectional and the prospective data with depressive symptoms as criterion variable. Predictor variables included sex (Step 1) and T1 co-reflection and co-brooding (Step 2). For the prospective analyses, T1 depressive symptoms were added to Step 1. Collinearity statistics indicated no multicollinearity in the data that could have biased the regression.

Table 3 reveals that neither co-brooding nor co-reflection was concurrently associated with depressive symptoms. However, both co-rumination components were significant unique predictors of T2 depressive symptoms, above and beyond sex and T1 depressive symptoms. A positive unique association was found between co-brooding and depressive symptoms, whereas the unique association between co-reflection and depressive symptoms was negative.

To investigate if co-reflection and co-brooding add to the prediction of depressive symptoms above and beyond their intrapersonal counterparts, both hierarchical regression analyses were repeated, adding T1 brooding and reflection in Step 2 and T1 co-brooding and co-reflection in Step 3 (Table 4).

Cross-sectionally, intrapersonal brooding emerged as a strong predictor of depressive symptoms. Prospectively, however, the two co-rumination components emerged as the only significant predictors of relative changes in depressive symptoms over time. Again, the association with co-brooding was positive, whereas the association with co-reflection was negative. So, even after taking into account intrapersonal brooding and reflection, both co-rumination components uniquely predicted depressive symptoms differentially over a three-month interval.

### 3.5 Moving beyond a two-factor model

Despite the satisfactory fit of the two-factor model and the different patterns of associations of both co-rumination components with depressive symptoms, it may be possible

to capture additional unaccounted variability<sup>1</sup> by examining whether a model with more than two factors would further improve the fit. To that end, we considered ways in which the 11 co-rumination items could be split up into more than two meaningful subsets. In doing so, we noted that the 11-item pool comprises items from four content domains described by Rose (2002). Specifically, the content of the co-brooding items refers to either ‘consequences of the problem’ or ‘negative feelings’, whereas the co-reflection items refer to ‘causes of the problem’ on the one hand and to ‘non-understood parts of the problem’ on the other hand. Confirmatory factor analysis indicated that a higher-order model in which co-brooding and co-reflection each encompassed two lower order factors, corresponding to their respective content areas<sup>2</sup> ( $\chi^2(39) = 83.40$ , CFI = .99, RMSEA=.058), provided a better fit to the data than the original two-factor model ( $\chi^2\text{diff}(5) = 47.08$ ,  $p < .001$ ). Given this, we reran all the regressions with the four lower order subscales (Cronbach's alphas between .70 and .81) (Tables 5 and 6). Prospectively, depressive symptoms were positively predicted by only one co-brooding subscale, i.e. ‘consequences of the problem’ (note that this was only marginally significant), and inversely predicted by one of the co-reflection subscales, i.e. ‘causes of the problem’. Notably, the correlation between the co-brooding on consequences and co-reflecting on causes subscales ( $r = .72$ ,  $p < .05$ ) was lower than that between the co-brooding and co-reflection scales.

#### 4. DISCUSSION

The present study is the first to examine co-brooding and co-reflection as interpersonal variants of brooding and reflection and to investigate if these variants differentially predict depressive symptoms, both concurrently and over a three-month interval, over and above intrapersonal rumination.

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<sup>1</sup> We thank the anonymous reviewer for this interesting suggestion.

<sup>2</sup> We also tested a model with only the four lower-order factors. This model did not fit the data significantly better than the higher-order model ( $\chi^2\text{diff}(1) = .03$ ,  $p = .86$ ), and thus provides evidence that our concepts of ‘co-brooding’ and ‘co-reflection’ may indeed be interpreted as higher-order factors of the four mentioned content areas.

Confirmatory factor analyses on a subset of CRQ items, all consistent with the definitions of brooding and reflection, provided support for a two-dimensional model with co-brooding (i.e., the tendency to catastrophize and focus attention on negative, undesirable feelings and consequences of problems within a dyadic relationship) and co-reflection (i.e., the tendency to try to better understand what is happening and make causal analyses within a dyadic relationship) as two correlated but distinguishable components. This is consistent with the findings in the intrapersonal brooding and reflection literature.

In keeping with the second aim of the study, co-brooding and co-reflection emerged as significant predictors of depressive symptoms after a three-month interval when taking into account both sex and baseline depressive symptoms. Importantly, both co-rumination components were differentially related to depressive symptoms, further supporting the idea that this two-dimensional conceptualization parallels the two-dimensional conceptualization of intrapersonal rumination (Treynor et al., 2003). Here too, the more catastrophizing component was found to be maladaptive, whereas the reflective component emerged as being adaptive.

In interpreting these findings, it should be noted that a strong positive zero-order correlation was found between co-brooding and co-reflection. Therefore, due to this strong overlap between the two co-rumination components (which is not surprising, given that the Co-rumination Questionnaire [Rose, 2002] was not designed to differentiate co-brooding from co-reflection), a positive, albeit non-significant, association was found between co-reflection and prospective depressive symptoms. However, once co-reflection's overlap with co-brooding was partialled out, its unique negative association with prospective depressive symptoms became significant. This reflects a classical suppression effect (see Paulhus, Robins, Trzesniewski, & Tracy, 2004). Although this supports the idea that co-reflection has an adaptive impact, that appears to be true only for that part of the subscale score that is not

contaminated with co-brooding.

Although we are convinced that our study provides preliminary evidence for the existence of interpersonal variations of the rumination components, one important goal in future research will be to maximize this distinction between what is maladaptive and what is adaptive and to improve the ability to capture both constructs of interest clearly and distinctly. The post-hoc exploration of a model with four instead of two co-rumination components provides preliminary insights into this matter. It seems that especially those items referring to co-brooding on consequences of a problem and co-reflecting on causes of a problem are most predictive of depressive symptoms. Notably, these two subscales showed less overlap -albeit still significantly high- than did the co-brooding and co-reflection scales. A promising direction in the magnification of the distinction between co-brooding and co-reflection could be to alter items in the CRQ to emphasize co-brooding on consequences versus co-reflecting on causes of problems. Our results further suggest that the adaptive and distinct aspect of co-reflection may stem from striving for a better understanding of the causes of a problem, whereas the maladaptive and distinct aspect of co-brooding may stem from catastrophizing about future consequences of a problem. However, given that these subscales comprise only a few items each for good reliability analyses, an important direction for future research will be the generation of new items.

Our study may also clarify the results of earlier studies regarding the associations of co-rumination with adjustment outcomes. As noted in the introduction, the evidence in general reveals positive associations of co-rumination on some outcomes (e.g., friendship quality) but negative associations with other outcomes (e.g., emotional wellbeing). Our findings suggest that these contrasting findings may reflect different ways of co-ruminating. Considering one and the same outcome (i.e. depressive symptoms), a more catastrophizing way of co-ruminating -especially catastrophizing about problem consequences- is positively

associated with depressive symptoms. In contrast, a more analytical way of co-ruminating - especially analyzing problem causes- is negatively associated with symptoms. In the present study, only one outcome was considered, making it impossible to draw conclusions on the potential differential associations of co-brooding and co-reflecting on friendship quality. However, it may be that the positive associations of co-rumination with friendship quality are primarily accounted for by co-reflection. Future studies on co-rumination components would benefit from the inclusion of a measure of e.g. friendship quality.

The third aim of the study was to investigate if the associations between depressive symptoms and the co-rumination components would account for significant variance above and beyond intrapersonal brooding and reflection. As expected, in the prospective analyses, co-brooding and co-reflection continued to predict depressive symptom levels after intrapersonal rumination components were controlled for. Indeed, only interpersonal and not intrapersonal brooding and reflection significantly predicted depressive symptoms. If replicated in future research, this finding may suggest that such interpersonal processes may be at least as impactful as their intrapersonal counterparts, especially in the long run. This is noteworthy, given that intrapersonal rumination has received far more attention to date.

Early adolescence is an influential phase for the development of future emotional problems (Petersen et al., 1993). Because our results show the importance of interpersonal components of rumination, we think that programs for preventing (and treating) depressive symptoms will profit from targeting co-rumination components. More specifically, prevention and intervention strategies could be more efficient if they focus on the diminishment of co-brooding –especially co-brooding on consequences- and the encouragement of co-reflection - especially co-reflection on causes- in friendships.

It could be useful for future studies to investigate which factors are contributing to the usage of both components to have a more profound foundation to build on. Interesting would

be the investigation of factors like temperament and personality in this context. It has been shown that intrapersonal rumination mediates the association between NA and depressive symptoms (e.g., Verstraeten, Vasey, Raes, & Bijttebier, 2009). It may be worthwhile to investigate this in an interpersonal context. It can be expected that people with high NA have a greater tendency to co-brood, which may increase their risk for depressive symptoms.

Some limitations should be considered when interpreting the findings of this study. First, the sole use of self-report measures may cause our results to be inflated by shared method variance. It could be interesting for future research to use peer ratings of co-brooding and co-reflection or interaction tasks that allow for coding of peers' conversations (Rose, Schwartz & Carlson, 2005). The inclusion of such measures would have the additional advantage that the perspective and report of both individuals within the friendship dyad can be taken into account, as recommended by Calmes and Roberts (2008). Second, the study exclusively focused on a community sample of early adolescents, recruited in schools. Future studies are needed to see to which extent our results can be replicated and generalized to samples with clinical depression and to other age groups. Third, although the prospective design is a clear strength of the current study, we only have two waves on a fairly short term. Future studies should try to gather at least three waves of data in order to be able to investigate bidirectional associations and transactional effects. Also, it may be recommendable to increase the length of the follow-up intervals, as a longer interval may reduce the association between baseline and later depressive symptoms, leaving more room for additional predictors to account for significant variance in symptoms.

In conclusion, this research provides a first step in the extension of the intrapersonal rumination literature by looking at interpersonal variants of brooding and reflection and by taking the first steps toward clarifying their differential roles. The results provide evidence for the added value of assessing interpersonal co-rumination components on top of intrapersonal

rumination components. The results could also have value for the co-rumination literature in that it may help to clarify when co-rumination is associated with adaptive and maladaptive outcomes.

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## 6. TABLES

Table 1

*Internal consistencies of all scales and Means and Standard Deviations for the Total Group and for Boys and Girls separately*

Variable	$\alpha$	$M (SD)$ All	$M (SD)$ Girls	$M (SD)$ Boys	$F$ -value ( $\eta^2$ )
Depression T1	.86	9.79 (6.89)	9.87 (6.72)	9.66 (7.19)	0.08 (.00)
Co-brooding T1	.87	16.76 (4.50)	17.35 (4.37)	15.76 (4.55)	11.02** (.03)
Co-reflection T1	.86	14.66 (3.99)	15.25 (3.79)	13.66 (4.15)	14.11*** (.04)
Brooding T1	.78	10.38 (3.72)	10.64 (3.70)	9.94 (3.72)	3.10 (.01)
Reflection T1	.67	9.64 (3.08)	9.94 (3.08)	9.11 (3.00)	6.36* (.02)
Depression T2	.87	9.42 (6.80)	9.49 (6.70)	9.31 (6.99)	0.08 (.00)

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 2

*Intercorrelations for scores on the CDI, CRSQ, CRQ, and Age*

	1	2	3	4	5	6
1. Age	-					
2. CDI T1	.02	-				
3. CRSQ - Brooding T1	.00	.47***	-			
4. CRSQ - Reflection T1	-.07	.29***	.64***	-		
5. CRQ - Co-brooding T1	-.04	.12*	.26***	.39***	-	
6. CRQ - Co-reflection T1	-.01	.08	.23***	.37***	.82**	-
7. CDI T2	.05	.75***	.39***	.26***	.10	.02

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

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Table 3

*Hierarchical Regression analyses predicting Time 1 and Time 2 depression from demographics, co-rumination components, and depressive symptoms, measured at Time 1*

	Depression T1					Depression T2				
	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>SE</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>SE</i>	$\beta$
Step 1	.00	.00				.56	.56***			
Sex			.22	.74	.02			.02	.49	.00
Depression T1								.74	.03	.75***
Step 2	.02	.02				.57	.01*			
Sex			-.04	.75	-.00			.13	.50	.01
Depression T1								.73	.03	.74***
Co-brooding			.24	.14	.16			.23	.09	.15*
Co-reflection			-.08	.16	-.05			-.29	.10	-.17**

\**p* < .05; \*\* *p* < .01; \*\*\* *p* < .001

Table 4

*Hierarchical Regression analyses predicting depressive symptoms from sex, intrapersonal and interpersonal (2 factors) response styles*

	Depression T1					Depression T2				
	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$
Step 1	.00	.00				.56	.56***			
Sex			.22	.74	.02			.02	.49	.00
Depression T1								.74	.03	.75***
Step 2	.23	.23***				.56	.00			
Sex			-.38	.66	-.03			-.08	.49	-.01
Depression T1								.71	.04	.72***
Brooding			.91	.11	.49***			.05	.09	.03
Reflection			-.06	.14	-.03			.09	.10	.04
Step 3	.23	.00				.57	.01*			
Sex			-.35	.67	-.02			.06	.50	.01
Depression T1								.71	.04	.72***
Brooding			.91	.11	.49***			.04	.09	.02

# BROODING AND REFLECTING IN AN INTERPERSONAL CONTEXT

Reflection	-.06	.14	-.03	.12	.11	.05
Co-brooding	.08	.13	.05	.20	.09	.13*
Co-reflection	-.10	.14	-.06	-.30	.10	-.18**

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\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

# BROODING AND REFLECTING IN AN INTERPERSONAL CONTEXT

Table 5

*Hierarchical Regression analyses predicting depressive symptoms from sex, intrapersonal and interpersonal (4 factors) response styles*

	Depression T1					Depression T2				
	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$
Step 1	.00	.00				.56	.56***			
Sex			.22	.74	.02			.02	.49	.00
Depression T1								.74	.03	.75***
Step 2	.02	.02				.57	.01*			
Sex			.01	.76	.00			.16	.50	.01
Depression T1								.73	.03	.74***
Consequences			.29	.23	.10			.30	.15	.10 <sup>†</sup>
Negative Feelings			.24	.23	.09			.18	.15	.07
Causes			-.37	.25	-.13			-.51	.17	-.19**
Non-understood parts			.29	.31	.08			.02	.21	.01

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; <sup>†</sup> $p < .06$



Table 6

*Hierarchical Regression analyses predicting Time 1 and Time 2 depression from demographics, response styles, and depressive symptoms, measured at Time 1*

	Depression T1					Depression T2				
	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$	$R^2$	$\Delta R^2$	$B$	$SE$	$\beta$
Step 1	.00	.00				.56	.56***			
Sex			.22	.74	.02			.02	.49	.00
Depression T1								.74	.03	.75***
Step 2	.23	.23***				.56	.00			
Sex			-.38	.66	-.03			-.08	.49	-.01
Depression T1								.71	.04	.72***
Brooding			.91	.11	.49***			.05	.09	.03
Reflection			-.06	.14	-.03			.09	.10	.04
Step 3	.23	.00				.57	.01*			
Sex			-.28	.67	-.02			.11	.50	.01
Depression T1								.71	.04	.71***

# BROODING AND REFLECTING IN AN INTERPERSONAL CONTEXT

Brooding	.91	.11	.49***	.03	.09	.02
Reflection	-.06	.14	-.03	.13	.11	.06
Consequences	.26	.21	.09	.28	.15	.10 <sup>†</sup>
Negative Feelings	-.07	.21	-.03	.14	.15	.05
Causes	-.23	.23	-.08	-.52	.17	-.19**
Non-understood parts	.08	.28	.02	.01	.21	.00

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\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ; <sup>†</sup> $p < .07$